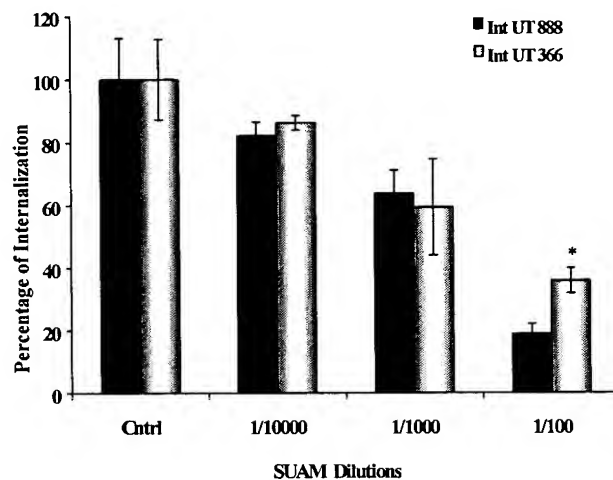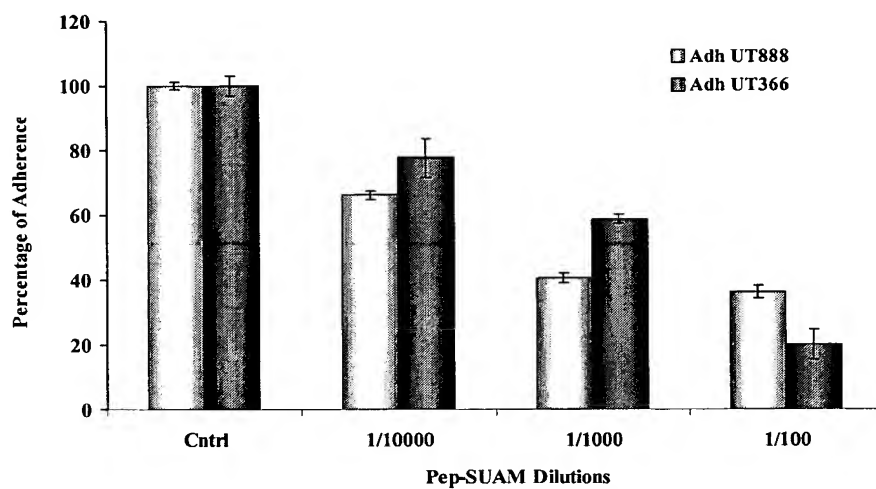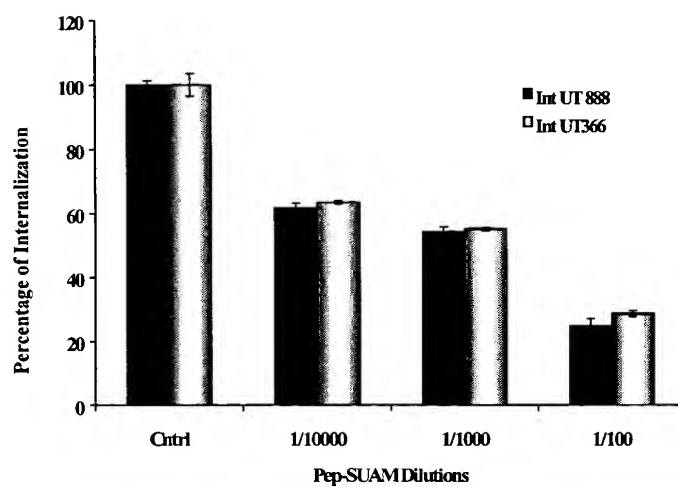FIGURE 1
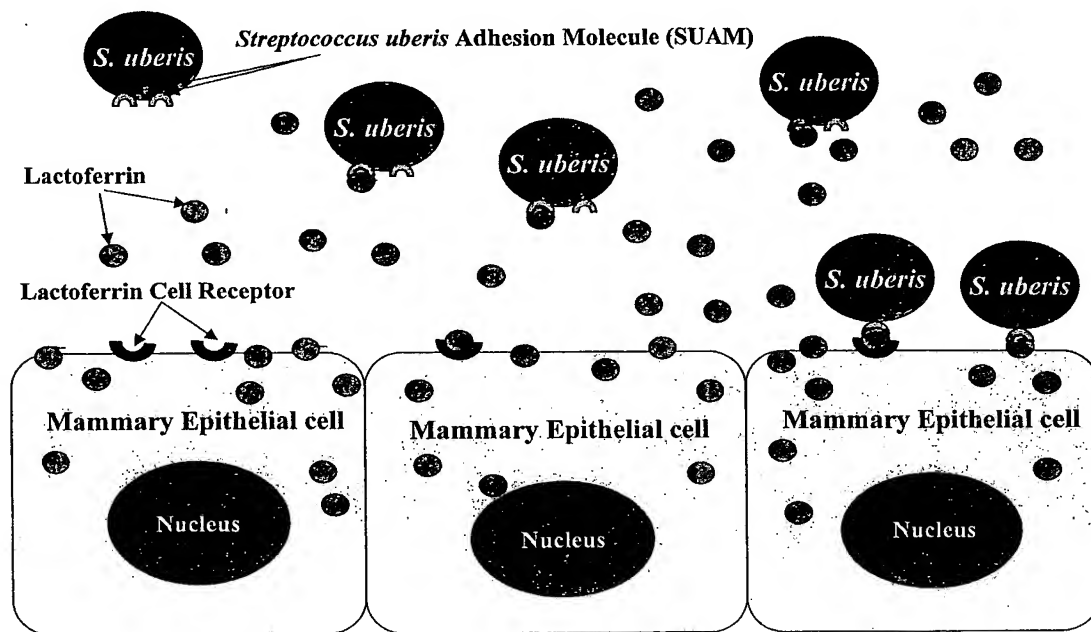
FIGURE 2

ATGATTAGTCTTCTATCCGAATTTGATAGTCATTTGGTAGGAGTGGCTGTTTTTGCTGAAA
ATGCTAAAGAAGAACGTGAACAGATGGCATATAAATCATTGCTTAAAGTTTCTGAAATAG
ATGTCAAGAACAATAAAGTCGTCGTTGAAGTTGGGAATATTTTTAACGATATATAATGTAT
GGAGAGAAAAAGGGAATATTATGGAATTCGAAAACACAAAATCTAATCAGATTAAAAACA
ACACTTGCTTTAACGTCAACACTCGCACTTCTTGGAACTGGTGTTGGTATGGGACATACCG
TTAATGCGGATGACATGACAACTGCTGATCAATCACCTAAATTACAAGGTGAAGAAGC
AACATTGGCGCCTACAAACATTGAAGATACTAAAGCAGCCATTGATATTAAAACAGCTAC
ATTAGCAGAACAAACCGATGCTCTTAATACTGTAAATGAGACAATCACAAGCACAAATGA
AGAATTAGCTACTTTAGAAGGAGGCTTAGCTGATAAAGAAACAGCAGTTGCAGATGCTGA
AAAAACATTGGAGTCTGTTTCAAATGCCTCAGAAGAAGAATTTAATCAATTAGCAGAACA
AAATAAAGCTGACTTAGCTAAAACTCAAGAGGAGCTAAAACTTGCTGAAGCAACAAAAG
AAGAAGTTGCAACACAGGTATTGACACAATCTGACGAGGTAACAGCTGCAGCTAATGAAG
CTAAAAAAATGGCTGAAAAAGTTGCACAAGCAGAGACAAAAGTTTCAGACTTGACGAAA
ATGGTCAATCAACCAGAAGCAATAACAGCTCAAGTTGAAATAGAACAAAACAATGTCAA
AATCATTTCGGAAGATTTAGCAAAAGCCAAAACTGATTTAGTTGCTGTAACAGATAATAC
AAAAACACAATTAGCAAATGATTTAGCGACTGCTCAATCTAGCTTAAGTGCCAAACAAAA
TGAATTAGCTAAAGTACAGTCACAAACAAGTAATGTCGCAGTGAATGTTATGGGTGCTAA
TAAAATGGTTGCTCCAACTAATTACCCAATTAATGAAATCAAAAAATTAATGTCAAGTGG
TTACATTGGGACACAATCTTATCTAAATACATTCTATGCTTTAAAAGATCAACTGGTTTCT
AAAGCAGAAGTTGGGGCATACTTAAATCATTACGTTGATATCGCAAGTGACTTAAACCGT
ATCGTTAACCCAGATAACTTATCAGTTGAGGTTCAAAATGAATTGGCTGTATTTGCAGCAA
CATTGATTAATTCTGTTCGTCAACAATTTGGTCTTTCTGCAGTCGAAGTGACGCAAGGTGC
TCAAGAGTTTGCTCGCACTTTGACTCGAAACTATAAAGTAACACATGGAAACACTGTTCCT
TTCTTTAATTACAATCAACCTGGCAAGAATGGTCATATAGGCATTGGTCCACACGATAGAA
CAATTATCGAACAAGCAGCTACAAGTGTTGGCTTAAAAGCTAATGATGATAATATGTATG
AAAACATCGGATTCTTTGATGATGTTCATACTGTTAATGGTATCAAACGTAGTATTTATAA
CAGTATTAAGTACATGCTGTTTACAGACTTCACCTATGGAAATACATTTGGACATACGGTT
AACTTGTTGCGTTCTGATAAAACAAACCCAAGTGCTCCGGTCTATTTAGGAGTTTCAACAG
AAACTGTTGGTGGTTTAAATACCCACTATGTTATCTTCCCGGCAAGCAATATTGTAAATGC
CAGCCAATTCAGCAAACAAGTGGTTTCAGGTCCATTAACAACAGTTGATAACAGTGCTAA
AATTAGCACTCTTCAAGCAAGTATTACTTCTGTTGAGTCTAAAATTCAAACCTTACAAAAA
CGTATTGCAAATATTTCTTCAGAAGCACTAGTTGTCTCTGCACAGAGAAAAGTAGATGGTT
TAGCTGCAAAACTTCAAAAAGCTGAATCTAACGTTGAAAAAGCAAAAGCTCAACTTCAAC
AGTTACAAGATTCAAAAGAAGATTTACATAAACAACTTGCTTTTTCCCTTTCAACTCGTAA
GGATTTAAAAGGTCAACTTGACGAATCGCTTGTTCACCTAAATCAGTCTAAAATTCTTTTA
CATAGCTTAGAAGAAAAACAAAGTCAAGTGGCAAGTCAAATTAACGTCTTGACATTGAAG
AAGGCACAACTTGAAAAAGAACTAGCCTTTAACTCTCATCCAAATCGTGAAAAAGTTGCA
AAAGAAAAAGTTGAAGAGGCTCAAAAAGCATTAACAGAAACCTTATCTCAAATTAAAACT
AAAAAAGCTATCTTAAATGATTTAACACAAGAAAAAGCAAAATTGACGTCAGCAATCACA
ACAACTGAACAACAAATTGTTTTTGTTGAAGAATCATTTAGCAAATCAAGTGGCGAATGCT
CCAAAAATCAGCAGTATTGTCCAAAGATCAGAAAACAATAGAGTAAGACCTGATGTTTCT
GATACAAGAGAGAAGGCAGTAGATACTGCTCAAGAAGCGACAATTCTTGCTCAAGCAGA
AACAATGGCTGAAGAGTCATTACAAATTCTGCAAAAGCCATTGTTGCAAATGCTCAAAA
TGTTGCACAAGAGATTATGAAAGTAGCACCTGAAGTAACACCTGATCAAGGAGTTGTTGC
AAAAGTTGCAGATAATATTAAGAAAAATAATGCCCCAGCAAGTAAATCATATGGTGCAAG
TTCATCAACGGTAGGAAATGCTACTTCTTCACGAGATGAAAGTACAAAACGTGCTTTAAG
AGCAGGAATTGTTATGCTGGCAGCAGCAGGACTTACTGGTTACAAACTCAGAAGAGATGG
CAAAAAATAAGAAAATCAAAGGAAAAATTGATTGACAGAAAGTACCGTCTATGTTACTAT
AGTAGACGGTACTTTTTACTTTTGGTCTCTCAAAAGTGTACAGAGACGTGCTGACAATTGT
TGCAAAAGTACACACAGATATAGGCTGTCACCAAGTGCTATATCAACCAAAAATAAAAAA
ATACAGGAGAATGTAGATGCCTACAATTAAC

FIGURE 3

LVFYPNLIVIWEWLFLLKMLKKNVNRWHINHCLKFLKMSRTIKSSLKLGIFLTIYNVW
REKGNIMEFENTKSNQIKTTLALTSTLALLGTGVGMGHTVNA<u>**DDMTTADQSPKLQ**</u>
<u>**GEEATLAPT**</u>NIEDTKAAIDIKTATLAEQTDALNTVNETITSTNEELATLEGGLADKET
AVADAEKTLESVSNASEEEFNQLAEQNKADLAKTQEELKLAEATKEEVATQVLTQS
DEVTAAANEAKKMAEKVAQAETKVSDLTKMVNQPEAITAQVEIEQNNVKIISEDLA
KAKTDLVAVTDNTKTQLANDLATAQSSLSAKQNELAKVQSQTSNVAVNVMGANK
MVAPTNYPINEIKKLMSSGYIGTQSYLNTFYALKDQLVSKAEVGAYLNHYVDIASDL
NRIVNPDNLSVEVQNELAVFAATLINSVRQQFGLSAVEVTQGAQEFARTLTRNYKVT
HGNTVPFFNYNQPGKNGHIGIGPHDRTIIEQAATSVGLKANDDNMYENIGFFDDVHT
VNGIKRSIYNSIKYMLFTDFTYGNTFGHTVNLLRSDKTNPSAPVYLGVSTETVGGLNT
HYVIFPASNIVNASQFSKQVVSGPLTTVDNSAKISTLQASITSVESKIQTLQKRIANISSE
ALVVSAQRKVDGLAAKLQKAESNVEKAKAQLQQLQDSKEDLHKQLAFSLSTRKDL
KGQLDESLVHLNQSKILLHSLEEKQSQVASQINVLTLKKAQLEKELAFNSHPNREKV
AKEKVEEAQKALTETLSQIKTKKAILNDLTQEKAKLTSAITTTEQQIVLLKNHLANQV
ANAPKISSIVQRSENNRVRPDVSDTREKAVDTAQEATILAQAETMAEEVITNSAKAIV
ANAQNVAQEIMKVAPEVTPDQGVVAKVADNIKKNNAPASKSYGASSSTVGNATSSR
DESTKRALRAGIVMLAAAGLTGYKLRRDGKK-ENQRKN-LTESTVYVTIVDGTFYFW
SLKSVQRRADNCCKSTHRYRLSPSAISTKNKKIQENVDAYN

FIGURE 4

GTCATTTGGTAGGAGTGGCTGTTTTTGCTGAAAATGCTAAAGAAGAACGTGAACAGATGG
CATATAAATCATTGCTTAAAGTTTCTGAAATAGATGTCAAGAACAATAAAGTCGTCGTTGA
AGTTGGGAATATTTTTAACGATATATAATGTATGGAGAGAAAAAGGGAATATTATGGAAC
TCGAAAACACAAAATCTAATCAGATTAAAACAACACTTGCTTTAACGTCAACACTCGCAC
TTCTTGGAACTGGTGTTGGTATGGGACATACCGTTAATGCGGATGACATGACAACTGCTG
ATCAATCACCTAAATTACAAGGTGAAGAAGCAACATTGGCGCCTACAAACATTGAAGA
TACTAAAGCAGCCATTGATACTAAAACAGCTACATTAGCAGAACAAACCGATGCTCTTAA
TACTGTAAATGAGACAATCACAAGCACAAATGAAGAATTAGCTACTTTAGAAGGAGGCTT
AGCTGATAAAGAAACAGCAGTTGCAGATGCTGAAAAAACATTGGAGTCTGTTTCAAATGC
CTCAGAAGAAGAATTTAATCAATTAGCAGAACAAAATAAAGCTGACTTAGCTAAAACTCA
AGAGGAGCTAAAACTTGCTGAAGCAACAAAAGAAGAAGTTGCAACACAGGTATTGACAC
AATCTGACGAGGTAACAGCTGCAGCTAATGAAGCTAAAAAAATGGCTGAAAAAGTTGCA
CAAGCAGAGACAAAAGTTTCAGACTTGACGAAAATGGTCAATCAACCAGAAGCAATAAC
AGCTCAAGTTGAAATAGAACAAAACAATGTCAAAATCATTTCGGAAGATTTAGCAAAAGC
CAAAACTGATTTAGTTGCTGTAACAGATAATACAAAAACACAATTAGCAAATGATTTAGC
GACTGCTCAATCTAGCTTAAGTGCCAAACAAAATGAATTAGCTAAAGTACAGTCACAAAC
AAGTAATGTCGCAGTGAATGTTATGGGTGCTAATAAAATGGTTGCTCCAACTAATTACCCA
ATTAATGAAATCAAAAAATTAATGTCAAGTGGTTACATTGGGACACAATCTTATCTAAAT
ACATTCTATGCTTTAAAAGATCAACTGGTTTCTAAAGCAGAAGTTGGGGCATACTTAAATC
ATTACGTTGATATCGCAAGTGACTTAAACCGTATCGTTAACCCAGATAACTTATCAGTTGA
GGTTCAAAATGAATTGGCTGTATTTGCAGCAACATTGATTAATTCTGTTCGTCAGCAATTT
GGTCTTTCTGCAGTCGAAGTGACGCAAGGTGCTCAAGAGTTTGCTCGCACTTTGACTCAAA
ACTATAAAGCAACACATGGAAACACTGTTCCTTTCTTTAATTACAATCAACCTGGCAAGAA
TGGTCATATAGGCATTGGTCCACACGATAGAACAATTATCGAACAAGCAGCTACAAGTGT
TGGCTTAAAAGCTAATGATGATAACATGTATGAAAACATCGGATTCTTTGATGATGTTCAT
ACTGTTAATGGTATCAAACGTAGTATTTATAACAGTATTAAGTACATGCTGTTTACAGACC
TCACCTATGGAAATACATTTGGACATACGGTTAACTTGTTGCGTTCTGATAAAACAAACCC
AAGTGCTCCGGTCTATTTAGGAGTTTCAACAGAAACTGTTGGTGGTTTAAATACCCACTAT
GTTATCTTCCCGGCAAGCAATATTGTAAATGCCAGCCAGTTCAGCAAACAAGTGGTTTCAG
GTCCATTAACAACAGTTGATAACAGTGCTAAAATTAGCACTCTTCAAGCAAGTATTGCTTC
TGTTGAGTCTAAAATTCAAACCTTACAAAAACGTATTGCAAATATTTCTTCAGAAGCACTA
GTTATCTCTGCACAGAGAAAAGTAGATGGTTTAGCTGCAAAACTTCAAAAAGCTGAATCT
AACGTTGAAAAAGCAAAAGCTCAACTTCAACAGTTAAAAGATTCAAAAGAAGATTTACAT
AAACAACTTGCTTTTGCCCTTTCAACTCGTAAGGATTTAAAAGGTCAACTTGACGAATCGC
TTGTTCACCTAAATCAGTCTAAAATTCTTTTTCATAGCTTAGAAGAAAAACAAAGTCAAGT
GGCAAGTCAAATTAACGTCTTGACATTGAAGAAGGCACAACTTGAAAAAGAACTAGCCTT
TAACTCTCATCCAAATCGTGAAAAAGTTGCAAAAGAAAAAGTTGAAGAGGCTCAAAAAG
CATTAACAGAAACCTTATCTCAAATTAAAAACTAAAAAAAGCTATCTTAAATGATTTAACAC
AAGAAAAAGCAAAATTGACGTCAGCAATCACAACAACTGAACAACAAATTGTTTTGTTGA
AGAATCATTTAGCAAATCAAGTGGCGAATGCTCCAAAAATCAGCAGTATTGTCCAAAGAT
CAGAAAACAATGGAGTAAGACCTGATGTTTCTGATACAAGAGAGAAGGCAGTAGATACT
GCTCAAGAAGCGACAATTCTTGCTCAAGCAGAAACAATGGCTGAAGAAGTCATTACAAAT
TCTGCAAAAGCCATTGTTGCAAATGCTCAAAATGTTGCACAAGAGATTATGAAAGTAGCA
CCTGAAGTAACACCTGATCAAGGAGTTGTTGCAAAAGTTGCAGATAATATTAAGAAAAAT
AATGCCCCAGCCAAGTAAATCATATGGTGCAAGTTCATCAACTGTAGGAAATGCTACTTCTT
CACGAGATGAAAGTACAAAACGTGCTTTAAGAGCAGGAATTGTTATGCTGGCAGCAGCAG
GACTTACTGGTTACAAACTCAGAAGAGATGGCAAAAAATAAGAAAATCAAAGGAAAAAT
TGATTGACAGAAAGTACCGTCTATGTTACTATAGTAGACGGTACTTTTTACTTTTGGTCTCT
CAAAAGTGTACAGAGACGTGCTGACAATTGTTGCAAAAGTACACACAGATATAGGCTGTC
ACCAAGTGCTATATCAACCA

FIGURE 5

ValIleTrp***GluTrpLeuPheLeuLeuLysMetLeuLysLysAsnValAsnArgTrp
HisIleAsnHisCysLeuLysPheLeuLys***MetSerArgThrIleLysSerSerLeu
LysLeuGlyIlePheLeuThrIleTyrAsnValTrpArgGluLysGlyAsnIleMetGlu
LeuGluAsnThrLysSerAsnGlnIleLysThrThrLeuAlaLeuThrSerThrLeuAla
LeuLeuGlyThrGlyValGlyMetGlyHisThrValAsnAla**AspAspMetThrThrAla**
AspGlnSerProLysLeuGlnGlyGluGluAlaThrLeuAlaProThrAsnIleGluAsp
ThrLysAlaAlaIleAspThrLysThrAlaThrLeuAlaGluGlnThrAspAlaLeuAsn
ThrValAsnGluThrIleThrSerThrAsnGluGluLeuAlaThrLeuGluGlyGlyLeu
AlaAspLysGluThrAlaValAlaAspAlaGluLysThrLeuGluSerValSerAsnAla
SerGluGluGluPheAsnGlnLeuAlaGluGlnAsnLysAlaAspLeuAlaLysThrGln
GluGluLeuLysLeuAlaGluAlaThrLysGluGluValAlaThrGlnValLeuThrGln
SerAspGluValThrAlaAlaAlaAsnGluAlaLysLysMetAlaGluLysValAlaGln
AlaGluThrLysValSerAspLeuThrLysMetValAsnGlnProGluAlaIleThrAla
GlnValGluIleGluGlnAsnAsnValLysIleIleSerGluAspLeuAlaLysAlaLys
ThrAspLeuValAlaValThrAspAsnThrLysThrGlnLeuAlaAsnAspLeuAlaThr
AlaGlnSerSerLeuSerAlaLysGlnAsnGluLeuAlaLysValGlnSerGlnThrSer
AsnValAlaValAsnValMetGlyAlaAsnLysMetValAlaProThrAsnTyrProIle
AsnGluIleLysLysLeuMetSerSerGlyTyrIleGlyThrGlnSerTyrLeuAsnThr
PheTyrAlaLeuLysAspGlnLeuValSerLysAlaGluValGlyAlaTyrLeuAsnHis
TyrValAspIleAlaSerAspLeuAsnArgIleValAsnProAspAsnLeuSerValGlu
ValGlnAsnGluLeuAlaValPheAlaAlaThrLeuIleAsnSerValArgGlnGlnPhe
GlyLeuSerAlaValGluValThrGlnGlyAlaGlnGluPheAlaArgThrLeuThrGln
AsnTyrLysAlaThrHisGlyAsnThrValProPhePheAsnTyrAsnGlnProGlyLys
AsnGlyHisIleGlyIleGlyProHisAspArgThrIleIleGluGlnAlaAlaThrSer
ValGlyLeuLysAlaAsnAspAspAsnMetTyrGluAsnIleGlyPhePheAspAspVal
HisThrValAsnGlyIleLysArgSerIleTyrAsnSerIleLysTyrMetLeuPheThr
AspLeuThrTyrGlyAsnThrPheGlyHisThrValAsnLeuLeuArgSerAspLysThr
AsnProSerAlaProValTyrLeuGlyValSerThrGluThrValGlyGlyLeuAsnThr
HisTyrValIlePheProAlaSerAsnIleValAsnAlaSerGlnPheSerLysGlnVal
ValSerGlyProLeuThrThrValAspAsnSerAlaLysIleSerThrLeuGlnAlaSer
IleAlaSerValGluSerLysIleGlnThrLeuGlnLysArgIleAlaAsnIleSerSer
GluAlaLeuValIleSerAlaGlnArgLysValAspGlyLeuAlaAlaLysLeuGlnLys
AlaGluSerAsnValGluLysAlaLysAlaGlnLeuGlnGlnLeuLysAspSerLysGlu
AspLeuHisLysGlnLeuAlaPheAlaLeuSerThrArgLysAspLeuLysGlyGlnLeu
AspGluSerLeuValHisLeuAsnGlnSerLysIleLeuPheHisSerLeuGluGluLys
GlnSerGlnValAlaSerGlnIleAsnValLeuThrLeuLysLysAlaGlnLeuGluLys
GluLeuAlaPheAsnSerHisProAsnArgGluLysValAlaLysGluLysValGluGlu
AlaGlnLysAlaLeuThrGluThrLeuSerGlnIleLysThrLysLysAlaIleLeuAsn
AspLeuThrGlnGluLysAlaLysLeuThrSerAlaIleThrThrThrGluGlnGlnIle
ValLeuLeuLysAsnHisLeuAlaAsnGlnValAlaAsnAlaProLysIleSerSerIle
ValGlnArgSerGluAsnAsnGlyValArgProAspValSerAspThrArgGluLysAla
ValAspThrAlaGlnGluAlaThrIleLeuAlaGlnAlaGluThrMetAlaGluGluVal
IleThrAsnSerAlaLysAlaIleValAlaAsnAlaGlnAsnValAlaGlnGluIleMet
LysValAlaProGluValThrProAspGlnGlyValValAlaLysValAlaAspAsnIle
LysLysAsnAsnAlaProAlaSerLysSerTyrGlyAlaSerSerSerThrValGlyAsn
AlaThrSerSerArgAspGluSerThrLysArgAlaLeuArgAlaGlyIleValMetLeu
AlaAlaAlaGlyLeuThrGlyTyrLysLeuArgArgAspGlyLysLys***GluAsnGln
ArgLysAsn***LeuThrGluSerThrValTyrValThrIleValAspGlyThrPheTyr
PheTrpSerLeuLysSerValGlnArgArgAlaAspAsnCysCysLysSerThrHisArg
TyrArgLeuSerProSerAlaIleSerThr

FIGURE 6